

Claims

1. Method for the production of a dental moulded part, having the following steps:

5 a) production of a model (2) of the moulded part to be formed,

b) production of a coquille (10) having a hollow space (11) the form of which corresponds in substance to the form of the model (2),

10 c) production of a casting (20) by filling of the coquille hollow space (11) with a hardenable material and

d) allowing the casting to harden (20), characterized in that,

the model (2) produced in step a) is provided with an offset

15 (2a, 2b, 2c) which is taken into account in the production of the coquille (2) and

in that after the hardening of the casting (20) this is worked by material removal to produce the dental moulded part.

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2. Method according to claim 1,

characterized in that,

at least a cavity side of the model (2) is completely provided with an offset (2a, 2b, 2c).

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3. Method according to claim 1,

characterized in that,

at least an occlusal side of the model (2) is completely provided with an offset (2a, 2b, 2c).

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4. Method according to claim 1,

characterized in that,

the entire surface of the model (2) is provided with an offset (2a, 2b, 2c).

5 5. Method according to any preceding claim,

characterized in that,

the thickness of the offset (2a, 2b, 2c) depends upon the form of the moulded part to be produced.

10 6. Method according to any preceding claim,

characterized in that,

the thickness of the offset (2a, 2b, 2c) depends upon the hardenable material.

15 7. Method according to any preceding claim,

characterized in tha,

the model (2) of the moulded part to be formed is produced on the basis of an optical measurement of a tooth stump (1) on which the moulded part is to be arranged.

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8. Method according to claim 7,

characterized in that,

the model (2) with the offset (2a, 2b, 2c) is produced with the aid of a three-dimensional CAD reconstruction, wherein

25 the data obtained in the optical measurement of the tooth stump (1) is taken into account.

9. Method according to any preceding claim,

characterized in that,

30 the coquille (10) is produced by working of at least one coquille blank (12, 15) with a material removing machine.

10. Method according to claim 9,
characterized in that,
the working of the at least one coquille blank (12, 15) is
5 effected fully automatically, in particular by means of
milling, turning, boring and/or grinding.

11. Method according to claim 10,
characterized in that,
10 a material removal program, taking into account the desired
contours of the coquille (10) and of the coquille hollow
space (11), contains control commands for the material
removing machine.

15 12. Method according to claim 8 and claim 10,
that
the material removal program is produced on the basis of the
three-dimensional CAD reconstruction of the model (2)
provided with the offset (2a, 2b, 2c).

20 13. Method according to any of claims 9 to 12,
characterized in that,
upon production of the coquille (10) at the same time at
least one inlet channel (21) is worked into the coquille
25 blank (12, 15).

14. Method according to any preceding claim,
characterized in that,
after the hardening of the casting (20), for working this is
30 placed, not bedded out, together with the coquille (10) in a
mould receiver of a material removing machine.

15. Method according to any of claims 9 to 13 and claim 14, characterized in that,
for the working of the coquille blank (12, 15) and of the
5 casting (20) the same machine is employed, wherein the coquille is again put in place in the tool receiver exactly repositioned.

16. Method according to claim 14 or 15,
10 characterized in that,
in the working of the casting (20), the coquille material (13, 16) serves as support or mounting material.

17. Method according to claim 16,
15 characterized in that,
the working of the casting (20) is effected in at least two steps, in which in each case a certain region of the casting (20) is worked, wherein the previously already worked region of the casting (20) is again surrounded with a bedding mass
20 (22), in particular a milling wax or a plastic.

18. Method according to any of claims 14 to 17,
characterized in that,
the working of the casting (20) is effected fully
25 automatically, in particular by milling, turning, boring and/or grinding.

19. Method according to claim 18,
characterized in that,
30 a material removal program taking into consideration the contours of the casting (20) and of the moulded part to be

produced contains control commands for the material removing machine.

20. Method for the production of a dental moulded part,

5 having the following steps:

a) production of a model (2) of the moulded part to be formed,

b) production of a coquille (10) having a hollow space (11) the form of which corresponds in substance to the form of
10 the model (2),

c) production of a casting (20) by filling of the coquille hollow space (11) with a hardenable material and

d) allowing the casting to harden (20),
characterized in that,

15 after the hardening of the casting (20) this is worked in a material removing fashion, in order to produce the moulded part, wherein for this purpose the casting (20), not bedded out, is put in place together with the coquille (10) in a tool receiver of a material removing machine.

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21. Method according to claim 20,

characterized in that,

in the working of the casting (20) the coquille material (13, 16) serves as support or holder material.

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22. Method according to claim 21,

characterized in that,

the working of the casting (20) is effected in at least two steps, in which in each case a certain region of the casting
30 (20) is worked, wherein the previously already worked region

of the casting (20) is again surrounded with a bedding mass (22), in particular a milling wax or a plastic.

23. Method according to any of claims 20 to 22,
5 characterized in that,
the working of the casting (20) is effected fully
automatically, in particular by milling, turning, boring
and/or grinding.

10 24. Method according to any preceding claim,
characterized in that,
the moulded part is formed of a noble metal alloy.

25. Method according to any of claims 1 to 23,
15 characterized in that,
the moulded part is formed of a non-iron metal alloy, in
particular of a Co-Cr-Mo alloy.